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Application Number 10/625,901

Amendment dated December 9, 2004

Reply to Office action of September 9, 2004

And to the Notice of Non-Compliant Amendment of January 19, 2005

Amendments to the Abstract:

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Please replace the Abstract on file with the attached new abstract process and companies and the comp

A method and apparatus is disclosed for creating an optical ferrule A was mechanical coupling of the ferrule is achieved, at a first end of the ferrule, using at least two dowels while an optical coupling of the forrule with an optical device is achieved at a second end of the ferrule, using a total internal reflection. An optical connector and a manufacturing method are disclosed. The method for manufacturing an optical connector achieving a mechanical coupling comprises embedding a length of at least one optical fiber in a body to form an assembly. It also comprises to remove, at a first end of the assembly, a portion to provide a beveled surface on a corresponding first end of the optical fiber at which light is reflected for a side coupling. Also, at a portion of a side of the assembly near the first end, the method comprises creating an optical surface to provide a flat coupling surface for said side coupling. The method also comprises removing, at a second end of the assembly, a portion to provide a flat abutment surface including a corresponding second end of the at least one optical fiber. The method also comprises providing at the second end of the assembly a mating structure for precision connecting with a complementary connector in which an optical waveguide is end-coupled with at least one of the optical fiber.